<u>AMENDMENTS TO THE CLAIMS</u>

1.   (currently amended) A method for providing a dynamic continual improvement educational environment that is tailored to an individual learner, the method comprising:

using a user interface and a graphical design technique to design an ~~adaptive~~ educational path that is selectively adaptive to educational performances of learners, wherein the adaptive educational path comprises dynamic educational content and a plurality of object oriented educational activities for presentation to the learners, wherein the dynamic educational content is separate and independent from the plurality of object oriented educational activities, wherein the design technique automatically produces computer readable instructions relating to the dynamic educational content, and wherein aspects of the educational content are associated in a relational order even when an aspect of the educational content is moved;

providing a portion of the adaptive educational path for presentation of at least a portion of the educational content to a particular learner;

obtaining and automatically analyzing learner performance data of the particular learner ~~while providing the adaptive educational path~~, wherein the learner performance data is obtained and analyzed by a computer system;

using a computer processor and a computer readable medium encoded with object oriented computer executable code to automatically and adaptively customize the educational path to an educational performance of the particular learner, wherein the customizing of the educational path to the educational performance of the particular learner comprises:

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using the learner performance data that was obtained and analyzed by the computer system to identify~~ing~~ which portions of the educational content ~~and the educational activities~~ are to be ~~combined and~~ presented to the particular learner ~~based upon the learner performance data obtained and analyzed by the system,~~ wherein the identified portions include a type and difficulty of the educational content that is to be selectively presented to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to selectively determine a frequency of exposure of the identified portions of the educational content to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to identify which of the object oriented educational activities are to be presented to the particular learner;

selectively ~~combining~~ matching the identified portions of the educational content ~~and the~~with identified educational activities for presentation to the particular learner; and

selectively sequencing the individually ~~combined~~ matched educational content and corresponding educational activities for presentation to the particular learner based upon the learner performance data that was obtained and analyzed by the computer system, wherein the sequencing comprises modifying the ~~combination~~ presentation order of the individually matched educational content and corresponding educational activities based upon the learner performance data that was obtained and analyzed; and

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providing portions of the educational content for iterative presentation to the learner over an extended period of time based on at least some of the learner performance data that was obtained and analyzed by the computer system to maintain the learner's understanding of the educational content.

2.   (previously presented) A method as recited in claim 1, wherein the sequencing is ordered based upon a characteristic of the particular learner, the characteristic being at least one of:

(i)   a learning pace of the particular learner;

(ii)   a background of the particular learner;

(iii)   a style of learning of the particular learner; and

(iv)   a learning progress of the particular learner.

3.   (previously presented) A method as recited in claim 2, wherein said iterative presentation to the particular learner over an extended period of time comprises a step for providing a systematic spaced review of portions of the educational content to the particular learner based on the particular learner performance data.

4.   (previously presented) A method as recited in claim 3, wherein the systematic spaced review is further based on dynamic parameters of a minimum delay and a maximum delay of the review, wherein the dynamic parameters are selectively adjustable by an instructional designer.

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5. (previously presented) A method as recited in claim 3, wherein the particular learner performance data corresponds to at least one of (i) the particular learner's accuracy and (ii) the particular learner's speed in understanding the educational content.

6. (cancelled)

7. (cancelled)

8. (previously presented) A method as recited in claim 1, wherein the design technique comprises at least one of:

> (i) an object oriented technique that graphically relates at least some of the educational content with at least some of the educational activities; and

> (ii) a drag-and-drop technique that graphically relates at least some of the educational content with at least some of the educational activities.

9. (previously presented) A method as recited in claim 8, wherein said association comprises said combining of the identified portions of the educational content and the educational activities.

10. (cancelled)

11. (cancelled)

12.   (previously presented) A method as recited in claim 1, wherein the step for using an interface and a graphical design technique comprises:

designing a collaborative activity among learners; and

dynamically linking roles of the learners in the collaborative activity.

13.   (cancelled)

14.   (previously presented) A method as recited in claim 1, wherein the adaptive educational path provides an order for which concepts are to be learned by the particular learner within a lesson.

15.   (previously presented) A method as recited in claim 14, wherein the adaptive educational path comprises at least one of:

(i)   a linear sequence of activities; and

(ii)   an adaptive sequence of activities.

16.   (previously presented) A method as recited in claim 14, wherein the adaptive educational path includes one or more stage markers that delineate meaningful stages of learning.

17.   (previously presented) A method as recited in claim 1, wherein the step for using an interface and a graphical design technique to design an adaptive educational path comprises automatically snapping activity icons to a grid.

18. (previously presented) A method as recited in claim 17, wherein the step for using an interface and a graphical design technique to design an adaptive educational path further comprises selectively organizing the activity icons to develop a flow of activities.

19. (original) A method as recited in claim 18, wherein movement of an activity icon within the flow of activities includes maintaining relationships with other activities branching the activity icon that is being moved.

20. (previously presented) A method as recited in claim 1, wherein the adaptive educational path includes a systematic spaced review of an educational lesson.

21. (previously presented) A method as recited in claim 2, wherein the step for using an interface and a graphical design technique to design an adaptive educational path includes designing an environment that includes a look and feel that is customized to a particular audience.

22. (previously presented) A method as recited in claim 1, further comprising designing a least a portion of said dynamic education content comprising at least one of:

      selectively cutting an audio file into smaller files that are named and preserved;

      modifying a start position of a selected audio file;

      modifying an end position of a selected audio file;

      graphically associating educational concept types with relationship types and properties;

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graphically identifying potential presentation problems corresponding to the educational content;

automatically adding new educational content from outside resources;

selectively tagging educational portions of a particular lesson to illustrate to the particular learner different contextual uses of the educations portions; and

utilizing a repository of media for designing the educational content.

23.   (previously presented) A method as recited in claim 1, wherein the step for using an interface and a graphical design technique to design an adaptive educational path comprises automatically analyzing data to identify said associations.

24.   (previously presented)   A method as recited in claim 1, further comprising designing dynamic educational content for presentation comprising:

executing automated tests on components to ensure that the components function as designed; and

diagnosing any errors in the components.

25.   (previously presented) A method as recited in claim 1, wherein the step for using an interface and a graphical design technique to design an adaptive educational path does not require that the designing be performed at the code level by a computer programmer.

26.   (previously presented)   A method as recited in claim 24, wherein the step for designing dynamic educational content for presentation comprises detecting any potential

problems in the designed content for repair.

27.   (previously presented)   A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation comprises:

automatically identifying a current activity used in presenting a portion of the educational content to the particular learner;

keeping track of a learning progress of the particular learner; and

automatically and adaptively determining which activity to use next to present the portion of the educational content to the particular learner.

28.   (previously presented)   A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation comprises automatically evaluating activity branching conditions upon completion of an activity for branches emanating from the completed activity.

29.   (previously presented)   A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation comprises:

automatically monitoring the educational progress of the particular learner;

if an educational lesson is not understood by the particular learner, performing at least one of:

(i)   selectively repeating at least a portion of an adaptive path related to the educational lesson; and

    (ii)   presenting a related activity to assist the particular learner in understanding the educational lesson; and

if the educational lesson is understood by the particular learner, following another adaptive path that relates to a subsequent lesson.

30. (previously presented)   A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation comprises automatically providing positive feedback to the particular learner as aspects of the educational content are learned.

31. (previously presented)   A method as recited in claim 1, further comprising tracking the progress of the particular learner and generating a report relating to the particular learner's progress.

32. (previously presented)   A method as recited in claim 1, further comprising monitoring implementation fidelity to perform at least one of:

    (i)   ensuring that the presentation is performed as intended by the designer and that the results of the presentation are reliable;

    (ii)   measuring the degree to which teachers, tutors and students implement the presentation as designed and the degree to which learners, the tutors and administrators who interact with and contribute to any learning experience are encouraged to comply to system-determined guidelines; and

    (iii)   automatically reporting results of the implementation fidelity.

33.   (previously presented)   A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation further comprises evaluating the learning of the educational content.

34.   (previously presented)   A method as recited in claim 33, wherein the step for providing portions of the educational content for iterative presentation further comprises modifying the frequency for presenting the portions of the educational content based on the learning of the educational content.

35.   (previously presented)   A method as recited in claim 33, wherein the step for evaluating the learning of the educational content by the particular learner includes automatically conducting experiments on the particular learner to identify an optimal instructional setting for the particular learner.

36.   (original)   A method as recited in claim 33, wherein the step for evaluating the learning of the educational content includes automatically analyzing experimental data obtained.

37.   (previously presented)   A method as recited in claim 1, wherein the relational order is an hierarchical order.

38.   (cancelled)

39.   (previously presented) A method as recited in claim 1, wherein said obtaining learner performance data includes a step for allowing a designer to determine the type of information that is to be obtained.

40.   (previously presented) A method as recited in claim 1, wherein the learner performance data includes at least one of:

      (i)   a period of time;

      (ii)   a number of questions:

      (iii)   a number of answers;

      (iv)   a number of times the particular learner's voice was recorded;

      (v)   information accessed;

      (vi)   a number of particular learner interactions;

      (vii)   particular learner interactions;

      (viii)   audio recording of the particular learner;

      (ix)   text from the particular learner;

      (x)   a conversation between multiple learners, wherein one of the multiple learners is the particular learner;

      (xi)   a conversation between a computer device and the particular learner;

      (xii)   a response to content presented;

      (xiii)   graphical data created by the particular learner; and

      (xiv)   any input received from the particular learner.

41. (previously presented) A method as recited in claim 1, further comprising designing dynamic educational content for presentation using at least one of:

> (i) component modules, wherein the component modules are reusable for designing other dynamic educational content, thereby causing a process of designing dynamic educational content for presentation to be efficient; and
>
> (ii) dynamic activities, wherein the dynamic activities are reusable for designing other dynamic educational content, thereby causing a process of designing dynamic educational content for presentation to be efficient.

42. (previously presented) A method as recited in claim 1, wherein the step for using an interface and a graphical design technique to design an adaptive educational path includes a step for allowing at least a portion of the content to be selectively supported by any of a number of output layout formats.

43. (previously presented) A method as recited in claim 1, further comprising a step for selectively and instantly changing a look and feel of the presentation.

44. (previously presented) A method as recited in claim 2, further comprising a step for grouping experimental data to determine information relating to one or more groups to which the particular learner belongs.

45. (previously presented) A method as recited in claim 44, wherein the step for providing the adaptive educational path for presentation includes implementing the at least a portion of the presentation based on the particular learner's similarity to other learners for which optimum settings have been established.

46. (previously presented) A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation includes a step for conducting experiments using an experimental unit that is at least one of:

      (i)   a particular concept;

      (ii)   a particular learner type; and

      (iii)   a particular learner.

47. (previously presented) A method as recited in claim 2, further comprising a step for automatically generating a report relating to at least one of:

      (i)   the presentation; and

      (ii)   the particular learner's performance.

48. (previously presented) A method as recited in claim 1, wherein the step for providing portions of the educational content for iterative presentation includes selectively prioritizing aspects of the presentation, wherein the aspects are at least one of:

      (i)   activities;

      (ii)   lessons; and

      (iii)   tasks.

49.   (previously presented) A method as recited in claim 1, further comprising a step for selectively displaying the particular learner's progress.

50.   (currently amended) A dynamic continual improvement educational system that is tailored to an individual learner, the system comprising:

a computer system having a development module, an implementation module, an analysis module, and an output device, wherein the output device displays a user interface that enables a user to utilize a graphical design technique for designing an ~~adaptive~~ educational path that is selectively adaptive to educational performances of learners, wherein the adaptive educational path comprises dynamic educational content and a plurality of object oriented educational activities for presentation to one or more learners, wherein the dynamic educational content is separate and independent from the plurality of educational activities, wherein the design technique automatically produces computer readable instructions relating to the dynamic educational content; and

the dynamic educational content designed for presentation to learners, wherein the adaptive educational path includes structural components that are graphically associated in a relational order on the user interface even when any of the structural components are moved, and wherein at least a portion of the educational path is adaptively customized for a particular learner by obtaining and automatically analyzing learner performance data of the particular learner ~~while providing a portion of the adaptive path~~, wherein the learner performance data is obtained and analyzed by the computer system to cause the system to automatically and adaptively sequence the educational path to an educational performance of ~~for~~ the particular learner, wherein the customizing of the educational path to an educational performance of the particular learner comprises:

using the learner performance data that was obtained and analyzed by the computer system to identifying which portions of the educational content and the educational activities are to be combined and presented to the particular learner based upon the learner performance data obtained and analyzed by the system, wherein the identified portions include a type and difficulty of the educational content that is to be selectively presented to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to selectively determine a frequency of exposure of the identified portions of the educational content to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to identify which of the object oriented educational activities are to be presented to the particular learner;

selectively combining matching the identified portions of the educational content and thewith identified educational activities for presentation to the particular learner; and

selectively sequencing the individually combined matched educational content and corresponding educational activities for presentation to the particular learner based upon the learner performance data that was obtained and analyzed by the computer system, wherein the sequencing comprises modifying the combination presentation order of the individually matched educational content and corresponding educational activities based upon the learner performance data that was obtained and analyzed; and wherein the adaptive customization comprises a modification to the educational path based upon the learner

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performance data, the adaptive customization being ordered based upon a characteristic of the particular learner and portions of the educational content are iteratively presented to the particular learner over an extended period of time to maintain the particular learner's understanding of the educational content.

51.   (previously presented) A system as recited in claim 50, wherein the characteristic is at least one of:

(i)   a learning pace of the particular learner;

(ii)   a background of the particular learner;

(iii)   a style of learning of the particular learner; and

(iv)   a learning progress of the particular learner.

52.   (previously presented) A system as recited in claim 51, wherein the user interface is configured for use in assembling activities from the structural components to design the adaptive educational path, and wherein the interface facilitates the creation of adaptively sequenced instruction.

53.   (previously presented) A system as recited in claim 51, further comprising a computer device communicatively coupled to the computer system and configured to enable an exchange of information between the computer device and the computer system.

54.   (original) A system as recited in claim 53, wherein the communications mechanism is a network.

55. (original) A system as recited in claim 54, wherein the network is the internet.

56. (cancelled)

57. (previously presented) A system as recited in claim 53, wherein the graphical user interface includes a grid on which the adaptive educational path is created by automatically snapping activity icons to the grid and providing a relationship between the activity icons.

58.   (currently amended) A continual improvement educational process that is tailored to an individual learner, the process comprising:

a development module for designing an adaptive educational path using a user interface and a design technique, wherein the design technique automatically produces computer readable instructions relating to the dynamic educational content without causing a designer to encode the instructions, wherein the adaptive educational path comprises dynamic educational content and a plurality of object oriented educational activities for presentation to learners, and wherein the dynamic educational content is separate and independent from the plurality of educational activities;

the dynamic educational content for presentation to learners, wherein the adaptive educational path comprises a sequence of at least some of the dynamic educational content for presentation to a particular learner, wherein aspects of the educational content are graphically associated in a relational order on the user interface, the association capable of being maintained even when an aspect of the educational content is moved;

an implementation module associated with the development module for selectively implementing the presentation of the educational content to the learner, wherein the presentation is automatically adapted to a characteristic of the learner, and for iteratively implementing at least a portion of the presentation to the learner over an extended period of time to maintain the learner's understanding of the educational content; and

an analysis module having a computer processor and a computer readable medium encoded with computer executable code, wherein the analysis module is associated with the implementation module for determining the learning pace of the

learner and the learner's understanding of the educational content, the analysis module obtaining and automatically analyzing learner performance data of the learner while providing the adaptive educational path, wherein the learner performance data is obtained and analyzed by the analysis module to cause the computer processor of the analysis module to automatically and adaptively customize the educational path to the educational performance of the learner, wherein the customizing of the educational path to the educational performance of the learner comprises:

using the learner performance data that was obtained and analyzed by the computer system to identifying which portions of the educational content and the educational activities are to be combined and presented to the particular learner based upon the learner performance data obtained and analyzed by the system, wherein the identified portions include a type and difficulty of the educational content that is to be selectively presented to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to selectively determine a frequency of exposure of the identified portions of the educational content to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to identify which of the object oriented educational activities are to be presented to the particular learner;

selectively combining matching the identified portions of the educational content and the with identified educational activities for presentation to the particular learner; and

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selectively sequencing the individually ~~combined~~ matched educational content and corresponding educational activities for presentation to the particular learner based upon the learner performance data that was obtained and analyzed by the computer system, wherein the sequencing comprises modifying the ~~combination~~ presentation order of the individually matched educational content and corresponding educational activities based upon the learner performance data that was obtained and analyzed; and wherein the adaptive customization comprises modifying presentation of the educational path to the learner based upon the learner performance data.

59.   (previously presented) A continual improvement educational process as recited in claim 58, wherein the characteristic is at least one of:

      (i)   a learning pace of the learner;

      (ii)   a background of the learner;

      (iii)   a style of learning of the learner; and

      (iv)   a learning progress of the learner.

60.   (original) A continual improvement educational process as recited in claim 59, further comprising an implementation fidelity module associated with the implementation module for:

ensuring genuine fidelity of the presentation of the educational content; and

measuring and encouraging fidelity to system-determined guidelines for learners, tutors, and administrators who interact with and contribute to a learning experience.

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61.   (currently amended) A computer program product for implementing within a computer system a method for providing a dynamic continual improvement educational environment that is tailored to an individual learner, the computer program product comprising:

a computer readable medium encoded with computer executable code utilized to implement the method, the method comprising:

receiving input through a design technique to display an adaptive educational path on a user interface, the adaptive educational path having dynamic educational content and a plurality of <u>object oriented</u> educational activities for presentation to learners, wherein the dynamic educational content is separate and independent from the plurality of educational activities, wherein the design technique automatically produces computer readable instructions relating to the dynamic educational content, and wherein aspects of the educational content are associated in a relational order even when an aspect of the educational content is moved;

obtaining and automatically analyzing learner performance data of a particular learner, wherein the learner performance data is obtained and analyzed by the system to cause the system to automatically and adaptively customize the educational path <u>to an educational performance of the particular learner</u>, wherein the customizing of the educational path comprises:

<u>using the learner performance data that was obtained and analyzed by the</u> <u>computer system to</u> identify~~ing~~ which portions of the educational content ~~and the~~ ~~educational activities~~ are to be ~~combined and~~ presented to the <u>particular</u> learner ~~based upon the learner performance data obtained and analyzed by the system,~~

wherein the identified portions include a type and difficulty of the educational content that is to be selectively presented to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to selectively determine a frequency of exposure of the identified portions of the educational content to the particular learner;

using the learner performance data that was obtained and analyzed by the computer system to identify which of the object oriented educational activities are to be presented to the particular learner;

selectively ~~combining~~ matching the identified portions of the educational content ~~and the~~ with identified educational activities for presentation to the particular learner; and

selectively sequencing the individually ~~combined~~ matched educational content and corresponding educational activities for presentation to the particular learner based upon the learner performance data that was obtained and analyzed by the computer system, wherein the sequencing comprises modifying the ~~combination~~ presentation order of the individually matched educational content and corresponding educational activities based upon the learner performance data that was obtained and analyzed; and

displaying the combined educational content and educational activities on an output device to the learner, wherein the sequencing is automatically adapted to a characteristic of the learner; and

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iteratively presenting at least a portion of the educational content to the learner over an extended period of time to maintain the learner's understanding of the educational content.

62. (previously presented) A computer program product as recited in claim 61, wherein the characteristic is at least one of:

      (i)   a learning pace of the learner;

      (ii)   a background of the learner;

      (iii)   a style of learning of the learner; and

      (iv)   a learning progress of the learner.

63. (previously presented) A computer program product as recited in claim 62, wherein the step for iteratively presenting at least a portion of the educational content to the learner over an extended period of time comprises a step for automatically providing a systematic spaced review of the educational content to the learner based on the learner's performance, including the learner's accuracy and speed in understanding the educational content.

64. (cancelled)

65. (previously presented) A computer program product as recited in claim 62, wherein the association is between available components of the educational content based on specific properties of the available components.

66.   (cancelled)

67.   (previously presented)   A computer program product as recited in claim 62, wherein the adaptive education path provides a flow of activities for selective presentation to the learner to teach a particular educational lesson.

68.   (previously presented)   A computer program product as recited in claim 67, wherein the flow of activities are automatically snapped as activity icons to a grid.

69.   (previously presented)   A computer program product as recited in claim 68, wherein the method further comprises, upon receiving input to move an activity icon within the flow of activities, automatically and graphically maintaining relationships with other activities branching the activity icon that is moved.

70.   (previously presented)   A computer program product as recited in claim 62, wherein the method further comprises:

        executing automated tests on components to ensure that the components function
    as designed; and

        diagnose any errors in the components.

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